

RANA MACULATA BROCCHI, 1877 AND
ELEUTHERODACTYLUS RICHMONDI STEJNEGER, 1904
(AMPHIBIA, SALIENTIA): PROPOSED CONSERVATION.
Z.N.(S.)1750

Report by the Secretary, International Commission on Zoological
Nomenclature

In 1966 (*Bull. zool. Nom.* vol. 23, pp. 169–173) Smith, Lynch & Reese applied for the suppression of *Rana maculata* Daudin, 1801 for the purposes of both the Law of Priority and those of the Law of Homonymy. Their object was to conserve the junior homonym *Rana maculata* Brocchi, 1877 and the junior synonym *Eleutherodactylus richmondi* Stejneger, 1904. They stated that *Rana maculata* Daudin was a nomen dubium that had not then been used as a valid name for 150 years.

2. No comment was received on that application, which was sent for a vote between 12 June and 12 September 1968. Although the 20 affirmative votes received easily justified the plenary powers action requested, the one negative vote (from Dr Sabrosky) caused me to cancel that voting paper with a view to publishing Dr Sabrosky's objection and the applicants' reply. The former was published in 1969 (vol. 26, pp. 119–120) and the latter in 1970 (vol. 27, pp. 66–67). Further objection to the proposal from the nomenclature committee of the American Society of Ichthyologists and Herpetologists was received from the late Dr James A. Peters, who, speaking for himself, thought that no application to the Commission ought ever to have been made. The main points at issue are set out in greater detail below.

POINTS FROM THE ORIGINAL APPLICATION

3. The applicants showed that Daudin's type specimen was missing from a comparatively early date, since no mention is made of it by Duméril & Bibron, 1841, and they apparently could not find it, and Guibé, 1950, does not mention it. Neither the species nor the specimen on which it was based is mentioned in any of the major synopses of anurans.

4. In 1877 Brocchi described both *Rana maculata* (a new species, distinct from Daudin's) and *R. macroglossa*. Smith, 1959, pp. 212–216, synonymised the two names and (p. 214), acting as first reviser, chose *R. maculata* as the valid name. Stuart, 1963, p. 45, rejected Smith's first reviser action on the grounds that his paper was not 'revisionary' and used *R. macroglossa* as the valid name. The applicants then proceeded to designate lectotypes for the two nominal species in such a way as to make *R. macroglossa* a junior synonym of *R. pipiens* Schreber, 1782, thus removing it from consideration in connexion with their application.

They pointed out that if *R. maculata* Brocchi was allowed to fall as a junior homonym, the valid name for the species would be *R. melanosoma* Günther, 1900, a name never used as valid since its establishment. They then asked, as mentioned above, for the suppression of *R. maculata* Daudin, 1801; but they did not ask for either *R. maculata* Brocchi, 1877, or *Eleutherodactylus richmondi* Stejneger, 1904 to be placed on the Official List because 'their specific relationship to adjacent taxa remains to be determined with finality'.

DR SABROSKY'S COMMENTS

5. Dr Sabrosky started by pointing out that several possible solutions to the applicants' problem existed and that the Commission should have been presented with a choice between them. He set out four:
 - A. Application of the Code, without use of the plenary powers or Article 23b [then in force]. Result: *E. richmondi* would fall as a synonym of *E. maculatus* (Daudin); *R. maculata* Brocchi would fall as a junior homonym and be replaced by *R. melanosoma* Günther, 1900;
 - B. Application of the Code and use of Article 23b. Result, *R. maculata* Daudin would fall as a nomen oblitum and *E. richmondi* would stand; *R. maculata* Brocchi would be replaced by *R. melanosoma* as under A.
 - C. The original proposal. Result: *R. maculata* Daudin is suppressed; *E. richmondi* becomes nomenclaturally valid; *R. maculata* Brocchi becomes nomenclaturally valid through the suppression of its senior homonym and because the lectotype selection has sunk *R. macroglossa* as a junior synonym of *R. pipiens*.
 - D. Dr Sabrosky's proposal: Suppression of *R. maculata* for priority but not for homonymy and suppression of the proposers' lectotype designation of lectotype for *R. macroglossa*, followed by designation of the Paris Museum lectotype (or a paralectotype) of *R. maculata* Brocchi as lectotype of *R. macroglossa*. Result: *E. richmondi* becomes nomenclaturally valid as the applicants desired. *R. macroglossa* becomes valid over *R. maculata* Brocchi (whose status as a junior homonym is not altered) in accordance with 'fairly well entrenched usage' according to Stuart, 1963.
6. Dr Sabrosky pointed out that the applicants' designation of a lectotype for *macroglossa* altered the usage of that name between 1941 and 1959, thereby generating confusion that had not existed before. He recommended Alternative D because it would preserve that part of the applicants' aims that concerned synonymy (conservation of *E. richmondi*— though no supporting evidence of the desirability of that

step had been provided) but not that which concerned homonymy. He added that the applicants by their lectotype designation had closed certain options to the Commission that ought to have been left open to it. By that action they had created a disadvantage to the preservation of a previously stable nomenclature.

7. Dr Peters, on behalf of the nomenclature committee of the American Society of Ichthyologists and Herpetologists, gave the names of six herpetologists who supported Sabrosky's Alternative D and one who supported Alternative A. He reported that two of the original applicants stuck to their original position. Smith and Lynch, in rebutting Sabrosky's case (see below), said that *R. maculata* Brocchi had been used twice before 1959 and about half a dozen times since [up to 1970] and that *R. macroglossa* had not been used at all before 1959 and about 20 times since [up to 1970]. In his view, action within the limits imposed by the Code could and should have been taken, in which case no application to the Commission would have been necessary. In the circumstances of 1970, however, he supported Sabrosky's Alternative D.

REPLY BY DR SMITH AND DR LYNCH TO DR SABROSKY

8. Dr Smith and Dr Lynch strongly supported their original decisions. In view of the small amount of usage of *R. macroglossa* they did not regard stability of nomenclature as an important factor in the choice between that name and the simultaneously published *R. maculata* Brocchi. They attached weight to two other factors: (1) the precise type locality of *R. maculata* Brocchi vis-à-vis the vague one of *R. macroglossa*; and (2) the taxonomic unity among the syntypes of *R. maculata* Brocchi vis-à-vis the taxonomic mixture among the syntypes of *R. macroglossa*, thus making the application of the former unambiguous compared to that of the latter. They denied that *R. macroglossa* could be said to be well entrenched in usage.

9. In 1979 Dr Lynch sent me, at my request, particulars of eight uses of the disputed names since 1970. These were:

1971. Meyer, J. R. & Wilson, L. D. *Contrib. Sci. Los Angeles County Mus.*, no. 218, p. 31 (*R. macroglossa*)
1972. Villa, J. *Anfibios de Nicaragua*, pp. 74-77 (*R. maculata* Brocchi)
1972. Wilson & Meyer. *Herpetol. Rev.*, vol. 4, p. 219, review of Villa (*R. maculata* Brocchi with *R. macroglossa* as a junior synonym)
1974. Greding, E. J., Jr. *J. Herpetol.*, vol. 8, p. 189 (*R. macroglossa*)
1975. Henderson, R. W. & Hoervers, L. G. *Contrib. Biol. Geol. Milwaukee pub. Mus.*, no. 5, p. 17 (*R. maculata* Brocchi)
1976. Lee, J. C. *Herpetologica* vol. 32, pp. 211-214 (*Rana maculata* Brocchi with *R. macroglossa* as junior synonym)

1977. Webb, R. G. & Korky, J. K. *Herpetologica*, vol. 33, pp. 73–82 (*R. maculata* Brocchi with *R. macroglossa* as junior synonym)
1978. Webb, R. G. *Contrib. Sci. Los Angeles County Mus.*, no. 300, pp. 10–12 (*R. maculata* Brocchi with *R. macroglossa* as junior synonym)

Dr Lynch would have supported any alternative that would remove the threat of *R. maculata* Daudin within *Eleutherodactylus*. Once that question is settled (by any solution except Sabrosky's Alternative A) the choice between *maculata* Brocchi, *macroglossa* and *melanosoma* for that species can be considered. The usages he cited support Alternative C, but no great issue is involved because there is general awareness of the competition between *maculata* Brocchi and *macroglossa*, as shown by the frequency of citations in the form '*maculata* (= *macroglossa*)' or its equivalent.

REQUEST FOR ADVICE

10. From all the above it appears that Sabrosky's Alternative A would not provide an acceptable result; his Alternative B is no longer relevant in view of the 1972 changes to the former Article 23b. The choice is therefore between his alternatives C and D, and the Commission seeks the advice of workers on this group of anurans on this choice. Usage since 1979 may have some influence on this, though probably not of very much weight. Smith & Lynch, in replying to Sabrosky, showed that Alternative C requires only one use of the plenary powers whereas Alternative D needs three. This is a subjective factor compared to the objective criteria used by the applicants in preferring *maculata* Brocchi to *macroglossa*. The main purpose of this report is to prepare the ground for a clear-cut decision by the Commission.